Note Taking Guide: Episode 501 **Name_____**

A chemical bond - forms when 2 or more atoms rearrange _____
_____ to increase _____.

ionic bond - forms when valence _____ are _____
from one atom to another

cation – atom _____ electrons to become _____ charged

anion - atom _____ electrons to become _____ charged

In ionic compounds the ions are arranged in a _____ _____.
_____ forces hold the ions together.

Properties of ionic compounds:

- high _____ and _____ points
- _____ - not easily _____
- _____ electricity when _____ or
_____ because the ions are free to _____.

covalent bond - _____ are _____, forming
_____.

Covalent compounds have _____ forces holding the
_____ together.

Properties of covalent compounds:

- lower _____ and _____ points
- Many covalent compounds are _____ liquids or gases.
- _____– easier to _____
- are not _____ of electricity

electronegativity - property that tells how strong an atom's _____
is for _____.

Since oxygen has a _____ electronegativity than hydrogen, oxygen holds onto shared electrons _____, giving the oxygen a _____ negative charge and the hydrogen a partial _____ charge.

polar covalent bonds:

- electrons are shared _____, creating partially charged ends or _____.

nonpolar covalent bonds:

- electrons are shared _____ because atoms have the same electronegativities

Electonegativity difference:	Type of Bond
greater than or equal to 1.7	
between 1.7 and 0.3	
less than or equal to 0.3	

Examples: Mg and F? S and O?

Program 501, problem set 1:

metallic bond – electrons are _____
(creates a "____ of _____")

properties of metals:

1.
2.
3.
4.

The Chemistry Quiz

CR1._____ CR2._____ 1._____ 2._____

3._____ 4._____ 5._____